



INTERNATIONAL CONFERENCE ON

GREEN AND SUSTAINABLE DEVELOPMENT



Conference Proceedings

Kigali Serena Hotel, Rwanda
9 - 13 March 2025



University of Fort Hare
Together in Excellence

Proceedings Editor

Dr. Lerato E. Mdaka: North-West University, South Africa

This work represents the proceedings of the International Conference on Green and Sustainable Development, presented at the Serena Hotel, Kigali Rwanda from 10 to 12 March 2025.

Copyright © 2025 International Conference on Green and Sustainable Development

ISBN: 978-1-0370-6609-2 (e-book)

All rights reserved. No part of this publication may be reproduced or used in a manner that violates the rights of the contributing authors, without explicit consent from the copyright holder, with the exception of citing the work appropriately. The editors assume no responsibility or liability for any errors or omissions in the content of this document. The information contained in this document was provided by the author(s) and is published on an “as is” basis.

CONFERENCE COMMITTEES

Conference Chair

Dr. Ronald Kwena: University of Kigali, Rwanda

Conference Co-Chair

Prof Felix Maringe: University of Kigali, Rwanda

Prof. Joseph Lekunze: NWU Business School, South Africa

Prof Richardson Shambare: University of Fort Hare, South Africa

Scientific Committee

Prof. Chimucheka Tendai: University of Fort Hare, South Africa

Prof. Olabanji Oni: University of Fort Hare, South Africa

Prof. Ogechi Adeola: University of Kigali, Rwanda

Prof. Joseph Lekunze: NWU Business School, South Africa

Prof. Juliet Townes: University of Fort Hare , South Africa

Dr. Samuel Sindayigaya: University of Kigali, Rwanda

Dr. Musoni Wilson: University of Kigali, Rwanda

Dr. Mpumelelo Longweni, North-West University, South Africa

Dr. Ronald Kwena: University of Kigali, Rwanda

Dr. Lerato E. Mdaka: North-West University, South Africa

Logistics Committee

CPA.Dorcas Kamau: University of Kigali, Rwanda

Mrs.Ruth Mbabazi: University of Kigali, Rwanda

Dr Theresa Lisita: NWU Business School, South Africa

Prof Yvonne Du Plessis: NWU Business School, South Africa

Mrs Marli Moolman: NWU Business School, South Africa

Mr.Godwins Osimbo: University of Kigali, Rwanda

Technical and Audiovisual Setup Committee

Dr Musoni Wilson: University of Kigali, Rwanda

Mr.Theophile Uwizeye: University of Kigali, Rwanda

Mr. Prince Ndaruhutse: University of Kigali, Rwanda

CONFERENCE COMMITTEES

Marketing and Communications Committee

Prof. Wassaja Kiwanuka: University of Kigali, Rwanda

Dr. Lerato E. Mdaka: North-West University, South Africa

Mr. Luzinda UMAR: University of Kigali, Rwanda

Mr. Paul Ndavi: University of Kigali, Rwanda

Ms. Lilian Gikwaya: University of Kigali, Rwanda

Ms. Aimee Agahozo: University of Kigali, Rwanda

Transportation, Accommodation & Catering Committee

Mr. Aaron Turamye: University of Kigali, Rwanda

Ms. Aimee Ajeneza: University of Kigali, Rwanda

Ms. Esperance Rutayisire: University of Kigali, Rwanda

Ms. Diana Uwase: University of Kigali, Rwanda

Exhibition & Sponsor Booths

Ms. Noella Ibarushintege: University of Kigali, Rwanda

Ms. Gloria Uwimana: University of Kigali, Rwanda

Ms. Mbali Skosana: NWU Business School, South Africa

Mrs. Sophy Mogorosi: NWU Business School, South Africa

Protocol

Mr. KARANGWA SEMWAGA Driës Marie: University of Kigali, Rwanda

Mr. Morris Mburu: University of Kigali, Rwanda

Ms. ABAJAMBO Michèle: University of Kigali, Rwanda

Ms. IZERE Esther: University of Kigali, Rwanda

Mr. Abayo Yvan: University of Kigali, Rwanda

Ms. IREBE Fionav: University of Kigali, Rwanda

Ms. Jasmine Kimenyi: University of Kigali, Rwanda

Ms. DAVINA MUCHINGURI: University of Kigali, Rwanda



REVIEW PROCESS



University of Kigali, University of Fort Hare, and North-West University Business School hosted the International Conference on Green and Sustainable Development 2025 held at Kigali Serena Hotel from 10 – 12 March 2025.

The call for papers and review process was as follows:

1. Call for papers: The first call for papers was distributed on 10 October 2024, followed by a final call for papers on 15 December 2024.
2. Final papers and work in progress: These were submitted via a link on the conference website. The final date for submission was 30 December 2024.
3. Number of papers: The number of presentation submission was 54.
4. Workshop and showcase: The conference hosted 1 workshop by Learn Logistics and the innovation showcase by the NWU Business School.
5. All submissions were double blind reviewed. The authors identity was not provided to the reviewers. All reviewers were assigned, distributed and recorded on google drive tool.
6. Reviewers were requested to give a score out of 30 for the following elements:
 - Relevance to Conference Theme (5 Points)
 - Clarity and Coherence (5 Points)
 - Originality and Innovation (5 Points)
 - Methodological Rigor (5 Points)
 - Significance and Impact (5 Points)
 - Adherence to Guidelines (5 Points)

1. The scientific committee reviewed the scores and feedback and selected top papers based on the criteria of evaluation.
2. Of the 54 submissions received, 47 were accepted. The acceptance rate was accordingly 87%. Of the accepted papers 13 papers were withdrawn due to unavailability of the presenters and 2 papers were withdrawn by the author. At the conference 32 papers were presented.
3. Of the 32 conference presentations.
4. The authors were informed of the review process via email correspondence. The authors were sent reviewers feedback to incorporate in the final version. Final papers were submitted on February 15, 2025.

Dr. Ronald Kwena

Conference Chair

University of Kigali, Rwanda

Dr. Lerato E. Mdaka

Conference Proceedings Editor

North-West University, South Africa

CONFERENCE THEMES

Climate Change Mitigation and Adaptation Systems

Session Chair: Prof Ogechi Adeola

Sustainable Business, Management, and Economics

Session Chair 1: Dr Mpumelelo Longweni

Session Chair 2: Dr Ronald Kwena

Social Equity and Sustainable Development

Session Chair 1: Prof Chimucheka

Session Chair 2: Mrs Fortunate Mapuka

Sustainable Agriculture and Food Systems

Session Chair: Prof Joseph Lekunze

Environmental Policy and Governance

Session Chair: Mrs. Blen Sahilu

Green Technologies and Innovation

Session 1 Chair: Dr Willson Musoni

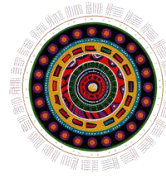
Session 2 Chair: Prof Yvonne Du Plessis

Multidisciplinary

Session 1 Chair: Prof Chimucheka

Session 2 Chair: Prof Wasajja Kiwanuka

Keynote Speakers



INTERNATIONAL CONFERENCE ON
**GREEN AND
SUSTAINABLE
DEVELOPMENT**



Amb. Prof Peter Ngunjiri

**Kenya's Ambassador to
UNESCO, France**

The Intersection of the UN
Sustainable Development
Goals, Climate Change and
Youth



Dr Thierry M. Kalisa

**Chief Economist & Executive
Director
National Bank of Rwanda
(BNR)**

Sustainable Finance and
Investment for Climate
Resilience: Driving Green
Innovation in Rwanda



**Prof Joseph
Sekhampu**

**Chief Director
North-West University
Business School**

The role of Business Schools
in Advancing Sustainability
and Responsible
Management in Africa



Prof. Edward Marinov

**New Bulgarian University,
Bulgaria**

The Economic Relations
between the Balkan Countries
and Rwanda (with a Focus on
Bulgaria): Current Trends and
Future Opportunities



**Prof Janet
Bagorogoza**

**Makerere University
Business School, Uganda**

Knowledge Management and
Performance of Poverty
Alleviation Interventions in
Uganda



Prof Gabriele Schäfer

**New Kempten University,
Germany**

Green Entrepreneurship and
Innovation

Panel Discussions



INTERNATIONAL CONFERENCE ON
**GREEN AND
SUSTAINABLE
DEVELOPMENT**

Driving Green Innovation and Sustainable Business Growth: Policies, Technologies, and Global Partnerships

Moderated by Prof Ogechi Adeola

- Mrs Doreen Ntawebasa, Director General, Trade and Investment-Ministry of Trade and Industry (MINICOM), Rwanda.
- Mrs Dukuze Marie Dalie, Director of Advocacy and Multilateral Environment Agreement Monitoring, REMA, Rwanda.
- Eng. Dominique Mvunabandi, Director of Science, Technology and Innovation (STI Unit), National Focal Person, Rwanda National Commission for UNESCO
- Prof Joseph Sekhampu, Chief Director, North-West University Business School

International Cooperation for Sustainable Development

Moderated by CPA. Dorcas Kamau

- Dr Willy Mugenzi: Chief Operations Officer, Rwanda Cooperation, Rwanda
- Mr. Mushakindi Jean Damascene: Executive Director - Charity Mission Strives for Sustainable Peace and Development, Rwanda
- Dr. Shadreck Muchaku: Centre for Global Change/ University of Fort Hare- South Africa
- Prof. Georgi Gochev: Vice-Rector International Affairs - New Bulgarian University

Showcases

Innovation Showcases hosted by NWU Business School

Session Facilitator: Dr Theresa Lisita

Sustainable supply Chain Management Session hosted by Learn Logistics by Kuhne Foundation

Session Facilitators:

- Dr Martin Gachukia
- Dr Joseph Akumuntu



Table of Abstracts

Drivers of Green Energy Consumption in the East African Community: A Fully Modified Ordinary Least Squares and Canonical	11
Towards Sustainable Urban Transport: Mass Public Transport Electrification in the Greater Kampala Metropolitan Area	11
Rethinking Macroeconomic Fundamentals and Climate Change Nexus: Evidence from Sub-Saharan Africa	12
Interactive Effect of Rainfall Intensity, Soil Erodibility, and Slope Gradient as Causative Factors of Ecological Infrastructure Degradation	12
Centre for Global Change: Driving Sustainable Innovation	13
The Effect of Stakeholder Orientation on Business Sustainability of Small, Medium, and Micro Enterprises in the Eastern Cape Province of South Africa	14
Contribution of Tourism-Based Microenterprises to Job Creation at a Local Level: An application of Exploratory Factor Analysis in South Africa	14
Application of AHP in Decision-Making: Case Studies and Practical Implementation	15
Nigerian Cybercrime: Implication on Employability of Nigerian Students in the U.S.....	16
Gender Dynamics and the Just Transition in South Africa	17
Advancing Gender-Inclusive Employment Policies for Sustainable Development in African Townships.....	17
Electricity Access, Energy Consumption and The Welfare of Ugandan Households	18
Nuanced Perspectives on the Challenges, Prospects, and Opportunities Confronting Sustainable Access to Portable Water and Sanitary Services in South Africa	20
Promoting Social Inclusion through Sustainable Hospitality Education: Strategies and Outcomes	20
Empowering Women & Youth in Communal Feedlots to Address Climate Change and Enhance Food Security in SA	21
Effectiveness of Disposal Instructions in Reducing Post-Consumer Waste	22
Evaluating Nitrogen and Phosphorus Dynamics Influenced by Animal Manure Biochar in Eutric Cambisol	22
Investigating Institutional Policies and Research Collaborations with Students and Study Leaders.....	23

A Synopsis of Green Energy Technology Implementation in South Africa.....	24
Linking green entrepreneurship to green innovation: the mediating role of green entrepreneurial self-efficacy.....	25
The Mediating Role of Green Knowledge Sharing on the Relationship Between Green Transformational Leadership and Green Innovation in the SADC Manufacturing Landscape	25
Statistical Analysis of Road Traffic Accidents in Rwanda	26
Sustainable Development and Smallholder Agriculture: Understanding Farmers' Views on Privatized Extension Services in Collins and Thulamela Municipality, South Africa.....	26
Proactive Strategy and Firm Performance: The Moderating Role of Environment	27
The Intersectionality of Gender and Ethnicity in Shaping Sexual and Reproductive Health Access in Zimbabwe.....	28
EAC Policies Influencing One Health and Sustainable Green Development: A Scoping Review and Framework	29
The Abuja-Kaduna Railway's Impact on Local Businesses In Igabi Local Government	29
Humanitarian aid green technology innovations, Climate financing and sustainable development in Kenya.....	30
Sustainability in Public Health: Causes of Section 100 Administration in NWDoH.....	31
Assessing the Impact of AI on Library User Engagement and Satisfaction.....	32
Managerial Insights for Sustainable Training: Revitalizing Orientation and Initiative Training Strategies.....	33
A Model for Enhancing Franchisee Effectiveness in the Fast-Food Industry	32



Drivers of Green Energy Consumption in the East African Community: A Fully Modified Ordinary Least Squares and Canonical

Francis Muhire

Makerere University Business School, Uganda

Purpose: The study aims to examine the impact of environmental policy quality, national income, quality of policy and institutional frameworks, regulatory effectiveness, population growth, electricity access, and research and development investments on green energy consumption in the East African Community.

Design/methodology: The study used secondary data from the World Development Indicators (WDI) and the International Energy Agency (IEA) for the EAC from 2000 to 2022. FMOLS and CCR models were employed in the analysis.

Findings: The study found that regulatory quality, quality of environmental policies, and access to electricity have a positive and significant long-run effect on green energy consumption in the East African Community. However, the study also found that national income (GDP per capita) and the Quality of Institutions and Policies do not have a long-run effect on green energy consumption in the East African Community.

Originality/value: Given the global attention to Green Energy Consumption as a solution to climate change and meet energy needs, this study discloses less studied drivers of Green Energy Consumption (as a proxy of Green Energy Transition), especially “Quality of environmental policies” in the EAC using an FMOLS and CCR Models Approach. Furthermore, most existing studies focus on renewable energy consumption, which includes solid biomass such as charcoal and firewood; this study covers green energy consumption.

Towards Sustainable Urban Transport: Mass Public Transport Electrification in the Greater Kampala Metropolitan Area

Judith Flavia Nakirija

Makerere University Business School, Uganda

Rapid urbanization in the Greater Kampala Metropolitan Area (GKMA) creates pressure on resources, including transport sector resources, creating traffic congestion, long travel time, and pollution. Transport issues in the GKMA underscore need for sustainable public transport like mass public transport electrification which can reduce greenhouse gas emissions and traffic congestion. This study assesses the prospects of transitioning to electrified public transport by eliciting consumer preferences via a choice experiment. Following a fractional factorial design approach, study respondents assessed trade-offs basing on conventional and electric mass public transport attributes. Data analysis followed a Multinomial Logit model anchored on the Random Utility theory. Study results reveal that emissions reduction, energy costs, charging infrastructure and top speed increase utility from electric public transport systems, while, purchase price, charging periods, and transport fare negatively impact utility.



To accelerate mass transport electrification, the study recommends EV purchase subsidies, tax incentives, and EV infrastructure investment.

Rethinking Macroeconomic Fundamentals and Climate Change Nexus: Evidence from Sub-Saharan Africa

*Anthony O. Onah
Richard O. Umeokwob
Chinwendu I. Onuzo Orafiri C. Ogan
Kelechi C. Nnamdi*

Central Bank of Nigeria, Nigeria

This study investigates the impact of macroeconomic fundamentals on climate change in five Sub-Saharan Africa (SSA) countries, from 2003 to 2022. Using temperature and precipitation as climate proxies and applying Panel General Method of Moments (P-GMM), findings reveal that GDP and exchange rates significantly impact precipitation, while inflation tapers it. Results also suggest that economic activities influence climate patterns in SSA, with rising prices linked to decreased deforestation and preserved biodiversity. The study recommends integrating climate risks into development policies, promoting clean energy, improving infrastructure, and adopting climate-smart agriculture for sustainable economic growth and resilience in SSA.

Interactive Effect of Rainfall Intensity, Soil Erodibility, and Slope Gradient as Causative Factors of Ecological Infrastructure Degradation

*Vinllard Treasure Nyagura
Alen Manyevere
Adornis Nciizah
Mohammed M Abd Elbasit*

*University of Fort Hare
Sol Plaatje University, South Africa
Agricultural Research Council, South Africa*

Corresponding author email: AManyevere@ufh.ac.za

Soil loss by water is one of the leading causes of land degradation. This has hampered ecological infrastructure development, sustainable agriculture and food security with about 19% of water reservoirs in Africa lost through siltation. Previous research has indicated that climate is bound to change causing irregular rainfall patterns and intensities, hence, there is need to conduct studies to investigate possible effects that arise from such changes on different slope gradients and soil erodibilities. The objective of this study was to investigate the interactive effect of rainfall intensity, soil erodibility and slope gradient on sediment losses.



The study was conducted in the mountainous Keiskamma and Kat River sub-catchment areas of the Eastern Cape Province, South Africa. A 4 X 3 X 3 factorial experimental design was used with four levels soil erodibilities, three levels of simulated rainfall intensities at three slope gradients respectively. The data were recorded in excel and processed using 3-way Analysis of Variance, stepwise regressions and Principal Components Analysis in a JMP Pro 16 (SAS Institute, Cary, NC, USA) software. Mean separation was done using the Tukey HSD test at $p=0.05$.

Preliminary results from simulation experiments showed that there were no interactive effects between soil erodibility, rainfall intensity and slope gradient on sediment loss ($P>0.05$). Additive effects were also not established. There was no significant effect between rainfall intensity and sediment loss for all soil types ($P>0.05$). Sediment loss and soil erodibility were weakly and negatively correlated to cumulic and oxidic ($P<0.05$) soils but no relationship was found on lithic and duplex soils ($P > 0.05$). Slope gradient had a significant relationship with sediment loss ($P<0.001$) among all soil types.

Overall, the study established that slope gradient had the most significant effect on sediment loss. However, rainfall intensity and soil erodibility had little effect on sediment loss. This further justifies the need for revision of the K factor equation to include more soil properties such as clay mineralogy. More importantly, the inconclusive results need to be tested under field conditions.

Centre for Global Change: Driving Sustainable Innovation

Leocadia Zhou

University of Fort Hare, South Africa

The Centre for Global Change (CGC) at the University of Fort Hare was established in 2011 by the Department of Science and Innovation (DSI) and the National Research Foundation (NRF) as a strategic initiative to advance research, innovation, and societal impact. The mandate of the CGC is to i) conduct responsive and proactive evidence-based research in collaboration with stakeholders at local, national, and global levels; ii) promote transdisciplinary postgraduate training for the next generation of researchers and practitioners; iii) manage knowledge dissemination through community forums, scientific publications, and conference/workshop presentations to communities, government entities, NGOs, and civil society and iv) implement community engagement activities to build resilient communities capable of adapting to global changes. The CGC is strategically located in the Eastern Cape, one of the most vulnerable regions in South Africa, particularly in the context of climate change. With the increasing need for resilient strategies and sustainable solutions to protect the well-being of the population, the importance of addressing these challenges has never been greater. This presentation aims to highlight the research activities, focusing on its efforts to bridge the gap between science and policy and demonstrate how these initiatives contribute to shaping effective, evidence-based solutions.



The Effect of Stakeholder Orientation on Business Sustainability of Small, Medium, and Micro Enterprises in the Eastern Cape Province of South Africa

Tendai Chimucheka

Winile Daza

University of Fort Hare, South Africa

Corresponding author email: tchimucheka@ufh.ac.za

In South Africa, the small, medium and micro enterprises (SMMEs) are regarded as key drivers of the economy, contributing significantly to job creation, economic growth and equitable distribution of income. The purpose of this study was to investigate the effect of stakeholder orientation on business sustainability of SMMEs in the Buffalo City Metropolitan Municipality, in the Eastern Cape Province. The secondary objectives of the study were to investigate the effect of customer orientation on business sustainability of SMMEs, to investigate the effect of competitor orientation on business sustainability of SMMEs, to investigate the effect of employee orientation on business sustainability of SMMEs, and to investigate the effect of shareholder orientation on business sustainability of SMMEs.

A quantitative research approach was used in conducting this research. Due to the unavailability of a reliable and accessible sampling frame, convenience sampling technique was used to draw a sample of 251 respondents, consisting of SMME owners and managers. A self-administered questionnaire was used as the research instrument. SPSS v.28 was used for data analysis. Both inferential and descriptive statistical tests were used. Multiple Regression analysis was used to test the primary hypothesis. The findings of this study showed a significant positive relationship between stakeholder orientation and the business sustainability of SMMEs. It was also revealed that customer orientation, competitor orientation, employee orientation and shareholder orientation affect the sustainability of SMMEs in the Buffalo City Metropolitan Municipality in South Africa. Recommendations were provided to SMME operators (owners and managers) as well as to the organisations providing support to SMME operators.

Contribution of Tourism-Based Microenterprises to Job Creation at a Local Level: An application of Exploratory Factor Analysis in South Africa

Joseph Lekunze

Lungile Ntsizwane

North-West University Business School, South Africa.

This study explores the contribution of tourism-based microenterprises towards job creation at a local municipal level. The study employs an exploratory design and follows a mixed method design exploring both qualitative and quantitative method of data gathering. A total of 50 tourist based small and medium enterprises (SMMEs) in northern townships of municipality area were sampled using a structured questionnaire while three senior municipality officials in



charge of policy frameworks for the local municipality were interviewed. A 10-variable conceptual model was constructed based on a single dimension (challenges by tourism based micro enterprises to job creation) ten statements with a 5-point Likert scale (SA = strongly agree, A = agree, N = neutral, D = disagree, SD = strongly disagree).

The study identify three most correlated factors and extract using principal component method with a cumulative percentage of over 67.033% accounting for the total variation. Challenges hindering job creation in a local municipality area can be categorized into three main components, namely: challenge factors (Institutional support, Access to finance, Regulations and Competition from big firms); Accessibility factor (Access to market) and Knowledge factor (Marketing and management skill). The findings revealed that the recurrent barrier factors that hinder the ability of tourism industry to generate jobs in the municipality area can be categorized into three main components, namely, challenge factors (Institutional support, Access to finance, Regulations and Competition from big firms); Accessibility factor (Access to market) and Knowledge factor (Marketing and management skill). The findings of this study revealed that tourism sector is in dire need of robust support mechanisms for new tourism small, medium and microeconomists in the country. The study found no deliberate policy or support structure in the local municipality for SMMEs enablement.

Application of AHP in Decision-Making: Case Studies and Practical Implementation

*Emmanuel Busingo
University of Kigali*

The selection of A-level subject combinations in Rwandan high schools significantly influences students' academic and career trajectories. However, the existing manual selection process, influenced by subjective factors such as parental, peer pressure, and institutional preferences, often results in misalignments between students' abilities and chosen combinations. This study proposes the first machine learning-based predictive model tailored for Rwanda's education system to optimize A-level combination selection using students' O-level academic performance data. A dataset comprising 2,614 students from selected schools was examined using various classification algorithms, including Support Vector Classifier (SVC), Random Forest (RF), and Decision Tree (DT) models. To handle class imbalance, the Synthetic Minority Over-Sampling Technique (SMOTE) was employed. The models' performance was measured based on accuracy, precision, recall, and F1-score, with SVC achieving the highest performance, attaining 97.51% accuracy, 97.43% precision, 97.44% F1-score, and 97.49% recall. A k-fold cross-validation approach (k=10) was applied to validate model robustness (SVC Mean Accuracy (10-Fold CV): 97.61%, Random Forest Mean Accuracy (10-Fold CV): 84.94%, and Decision Tree Mean Accuracy (10-Fold CV): 67.15%). Statistical significance tests (ANOVA) confirmed the reliability of SVC's superior performance (ANOVA F-statistic: 260.8576, ANOVA p-value: 0.000000). SVC performance is significantly better than RF and DT ($p < 0.05$).

The study demonstrates the potential of predictive analytics in enhancing student placement by providing objective, data-driven recommendations. Future improvements include incorporating deep learning models, integrating student feedback, and conducting longitudinal studies to assess the impact of machine-assisted selection over time.



Nigerian Cybercrime: Implication on Employability of Nigerian Students in the U.S

*Edidiong Ayeni
Joseph Sekhampu
Adebanji Ayeni
Enoima Emmanuel Abraham*

*North-West University Business School, South Africa
Topfaith University, Nigeria*

Corresponding author email: ekpoedidiong82@gmail.com

Cybercrime in Nigeria has morphed into a social vice that not only brings about financial loss. The alarming rate of cybercrime in Nigeria has garnered global attention, raising concerns about the potential impact this can have on the employability of Nigerian students abroad. To this end, this study examines the relationship between cybercrime occurrence in Nigeria and the employability of Nigerian students in the United States of America.

Employability is explored through competence in communication, technical proficiency, critical thinking, workplace skills, applied knowledge and interpersonal skills, while cybercrime is analyzed as a socio-economic and reputational variable. The research adopted a quantitative analysis from fifteen university samples chosen across three states (Texas, Maryland, and New York) in the United States of America. Cluster and Non-probability sampling techniques were used to select the areas where students pursue their academic interests as both researchers and students. The data was analyzed using descriptive and inferential statistics (mean and frequencies) while adopting the Structural Equation Model and PATH analysis as the analytical tool. The results showed that cybercrime is prevalent in Nigeria and that the relationship that exists between cybercrime occurrence in Nigeria and the employability of Nigerian students in the United States is attributed to Nigerians because of its association with cybercrime, and this by extension affects all Nigerians as a whole.

Stereotypes, prejudice, lack of trust and credibility were noted to stem from this relationship as the prevalence of cybercrime in Nigeria created a negative stereotype and bias against Nigerian individuals including students. The study recommends entrepreneurial growth through investing in selected strategic markets that encompass both the formal and informal sectors to encourage honest living while reducing unemployment. In the formulation of policies, social and economic drivers must be placed as paramount influencers in addressing the socio-economic drivers of cybercrime. This would improve the employability prospects of its citizens abroad and contribute to a more positive global image allowing for a strong institution and partnership.



Gender Dynamics and the Just Transition in South Africa

Philani Moyo

University of Fort Hare, South Africa

Corresponding author email: pmoyo@ufh.ac.za

Just Transition to a low carbon economy emphasizes the need to shift away from fossil fuel-dependent economies towards cleaner energy sources and sustainable practices, all while addressing social, economic, environmental and climate injustices. The idea of just transition now “increasingly features in policy and political discourse and appeals to the need to ensure that efforts to steer society towards a lower carbon future are underpinned by attention to issues of equity and justice”. Within this context, this paper explores the intersection of gender and just transition in South Africa at time when the country faces significant challenges related to economic stagnation, deepening poverty, inequality, continued dependence on fossil fuels and its greenhouse gas emitting mining-industrial complex. Using intersectionality lens, the paper questions whether the lives and experiences of women (and other marginalised genders) are central or peripheral to just transition discourse and practice. It highlights how traditional gender roles and systemic inequalities exacerbate vulnerabilities in communities reliant on fossil fuel and extractive industries. It argues for a gender-responsive approach to just transition that not only incorporates women's voices in decision-making but also promotes equitable access to green job opportunities and resources. It concludes by arguing for integrated strategies that support both environmental justice and gender equality, ultimately contributing to a more sustainable and equitable future for all South Africans.

Advancing Gender-Inclusive Employment Policies for Sustainable Development in African Townships

Tebello Msimanga

North-West University Business School, South Africa

Corresponding author email: Tebello.Msimanga@nwu.ac.za

High unemployment rate among women in South African townships has been an enduring issue, triggering barriers to sustainable development. This study investigates the socio-economic and structural factors that affect unemployment of women in Bophelong Township, emphasising on the need for gender-sensitive initiatives within sustainability programs as a whole. This research aims to assess the possible effects of tailored interventions, in particular, access to education, skills training, and childcare systems on women's employment. It is important to note that this will also aid in the achievement of the Sustainable Development Goals (SDGs), namely SDG 5 (Gender Equality) and SDG 8 (Decent Work and Economic Growth).

This study utilises a mixed-methods approach, integrating qualitative evidence from interviews and quantitative analysis of survey data gathered from 300 households headed by women.



Models of logistic regression are used to establish the core factors that affect unemployment, such as education, the structure of the household, marital status, and access to government grants. Additionally, perceived obstacles such as mobility limitations, cultural limitations, and workplace unreadiness are examined through qualitative analysis. Findings show that 65% of the sample female-headed households are unemployed and that access to education and skills training are significant determinants of employability. Females who are more likely to be employed are more educated and have greater vocational training, even in poor areas. Community-level support systems are compelled by cultural values and caregiving needs that contribute to the unemployment. Intriguingly, the dual impact of access to government grants discourages active job-seeking, while it provides short-term relief.

The propositions of the results above widen beyond distinct economic outcomes. Unified policies may be employed to reduce women's unemployment and, therefore, increasing social resilience, eradicating poverty and increasing a more equitable resource distribution. For sustainability, this research recommends an addition of gender-sensitive initiatives to the national policy; including subsidised childcare programs, vocational training schemes and private-public sector initiatives that can create employment opportunities for women. This study links gender equity and sustainability and provides guidance to development practitioners and policymakers. It highlights the need for promoting sustainable development in South African townships by using gender-sensitive initiatives and, thereby, achieving a resilient and inclusive economy.

Electricity Access, Energy Consumption and The Welfare of Ugandan Households

Robert Wamulimah

Makerere University Business School, Uganda

Corresponding author email: rwamulimah@gmail.com

This study examines the causal relationships between households' access to the national grid electricity, households' energy consumption and the households' welfare in Uganda. Electricity access, energy consumption, and household welfare are interdependent global development issues, emphasized by the Sustainable Development Goal 7 (SDG 7) under the United Nations Development Program (UNDP), with the aim of ensuring access to affordable, reliable, sustainable, and modern energy for all. While global Electricity access has improved significantly over time, disparities still persist: By year 2022, about 91% of the global population had access to electricity, compared to 83% in 2010. Currently about 733 million people, mainly in sub-Saharan Africa and South Asia, still have no access to electricity (IEA, 2022); More than 75% of whom are in Sub-Saharan Africa, while South Asia has made substantial progress due to large-scale electrification programs in countries like India and Bangladesh; Urban areas are more likely to have electricity access than rural areas. In sub-Saharan Africa, rural electrification rates are as low as 34% compared to 82% in urban areas (World Bank, 2022). Uganda over time has aimed at improving household welfare, with commendable strides in expanding household electricity access in all its forms (capacity, availability, reliability and quality) through expansion of the national electricity power grid network, promotion of energy efficiency, use of alternative sources of energy, increased investments and exploitation of the



abundant renewable energy sources including hydropower and geothermal to increase power generation capacity and expansion of rural electrification.

Notwithstanding the efforts, the country continues to grapple with unappealing household welfare indicators characterized by among others, high poverty rates 20.3%, low consumption levels, low literacy rates at 25 percent in rural sub regions, and poor housing and health conditions. Multidimensional energy poverty measure, Ssenono et al. (2021), indicate, 66 percent of Ugandans are multidimensionally energy poor with 33 percent severely. Such undesirable welfare statistics pertaining Ugandan households are a clear signal that the attainment of the intended benefits from implementation of welfare improving social-economic initiatives are far-fetched.

This paper attempts to establish the causal relationship of electricity access, energy consumption as predictors variables on individual measures of the predicted variable, Household Welfare (Household Consumption Per Adult Equivalent (CPEA), Household poverty status and Standard of Living (SoL). The paper provides in-depth insights in the understanding of the social world, with household welfare as evidence to public investment by respective Governments for equitable energy access applying quantitative investigation on the panel survey data for selected period. Flow and organisation of this paper is such that; Section one presents the background to the study, Section two gives the relevant theoretical literature and review of empirical studies related to the current study, while section three lays down the methods and procedures used to achieve the study objectives and their justification, section four presents the results and their discussion, while section five presents the conclusion and recommendations from the study.

Methods: This study adopts both a triangulation of explanatory and the longitudinal research designs, to establish cause-effect relationships between the study variables, where the same study sample of the households are tracked over the four waves of the Uganda National Panel Survey periods. The joint effect of the changes in the predictor variables of, electricity access and energy consumption on the changes in the predicted variable, household welfare are established using Bergsonian household utility function, which involves applying different welfare weights to each individual in the household. Maximizing this Bergsonian utility function subject to a household budget constraint generates centralized household demands that, is a Pareto efficient household, and give the same demands obtainable from a decentralized household program.

Results and Conclusions: Enhanced electricity access improves household welfare through increased income generation, better health outcomes, improved education outcoming, reduces poverty and improves living standards. This paper highlights the critical role of electricity access in fostering socioeconomic development and offers policy recommendations to inform public investments to promote equitable access to electricity so as to improve welfare.



Nuanced Perspectives on the Challenges, Prospects, and Opportunities Confronting Sustainable Access to Portable Water and Sanitary Services in South Africa

Shadreck Muchaku

Leocadia Zhou

University of Fort Hare, South Africa

The provision of safe water and sanitary services in South Africa's peri-urban areas remains a major challenge, despite being recognized as a basic human right that is essential for people dignity, health and well-being. Efforts to address these issues are often undermined by the rapid growth of informal settlements and inadequate waste management. This study provides insights into these challenges through case studies and offers empirically grounded solutions based on an innovative methodology.

Key informants (n=20) were engaged using semi-structured interviews and a further 150 community members were surveyed using closed-ended questions from the Kobo Toolbox. The data was analyzed using ATLAS.ti and R software. The results show that infrastructural deficiencies, poor maintenance and lack of community engagement are the main barriers. However, community-led initiatives and partnerships with local organizations offer viable solutions for sustainable access to drinking water and viable sanitary services. The message we take away from this study is that we can benefit from improving the infrastructure facilities available to us, building our capacity through community education, and promoting increased adoption, assimilation and uptake of user-friendly, climate-smart and indigenous adaptation strategies. This study concludes with an urgent call to all interested parties to complement our efforts with useful insights without repeating what already exists in the literature.

Promoting Social Inclusion through Sustainable Hospitality Education: Strategies and Outcomes

Isaac Alando Ouma

University of Kigali, Rwanda

Social inclusion has emerged as a critical global concern in the 21st century, particularly in industries like hospitality, which have undergone significant transformations following the COVID-19 pandemic. While inclusivity, equity, and fairness have become pressing issues in the hospitality sector, the role of educational programs in fostering social inclusion remains underexplored. This research investigates how hospitality education can contribute to increased social inclusion, focusing on strategies for integrating inclusive practices into the industry.

The study employs a mixed-methods approach, including interviews with key stakeholders such as hospitality educators, regulators, students, and employers. Additionally, it examines the current hospitality curricula across Rwandan institutions, analyzing the extent to which social inclusion is incorporated into sustainability content. This dual approach aims to



understand both the preparedness of future hospitality leaders and the effectiveness of existing educational frameworks in addressing inclusivity challenges.

Preliminary findings reveal that while social inclusion is often promoted through business development incentives—such as access to funding and financial support for achieving inclusivity targets—these strategies are limited in scope. Furthermore, sustainability curricula primarily emphasize environmental concerns, with minimal focus on social inclusion and social sustainability.

This research contributes to the redesign of hospitality education programs to integrate social inclusion more effectively, ensuring that future leaders and managers are equipped with the necessary skills and knowledge to foster diversity and equity in the hospitality industry. By addressing these gaps, the study seeks to promote a more inclusive and sustainable future for the sector.

Empowering Women & Youth in Communal Feedlots to Address Climate Change and Enhance Food Security in SA

Mhlangabezi Slayi

Leocadia Zhou

University of Fort Hare, South Africa

Climate change and food insecurity are ongoing challenges in the rural communities of the Eastern Cape Province, South Africa. In this context, communal feedlots present a promising intervention. This study examines the effects of participating in communal feedlots on household food security, income, and livestock management, with a particular focus on the adoption rates of climate-smart practices among women and youth. Using a mixed-methods approach, data were gathered from households involved in communal feedlots to assess changes in food diversity, livestock income, and adaptation practices. The results indicate that households participating in feedlots experienced significant improvements in food diversity scores, livestock income, and ownership levels, which directly enhanced their resilience to food insecurity. Comparisons based on gender and age group reveal that women have notably higher adoption rates for sustainable grazing and water conservation practices, while youth prefer drought-resistant feed and grazing management strategies. A positive correlation was identified between climate adaptation practices and food diversity scores, suggesting that households implementing these practices enjoy greater food security. These findings highlight the importance of communal feedlots and climate-smart practices in bolstering rural resilience. Targeted support for the participation of women and youth can further enhance the effectiveness of adaptation strategies. This study contributes to understanding how integrated livestock management and gender-responsive interventions can tackle climate-related challenges and improve food security in vulnerable rural communities.



Effectiveness of Disposal Instructions in Reducing Post-Consumer Waste

Tonny Kiggundu

Makerere University Business School, Uganda.

Environmental sustainability remains a global priority as entities, including manufacturing firms, intensify efforts toward environmental conservation. Regulatory frameworks now mandate manufacturing firms to include disposal instructions on all products to guide consumers on proper waste disposal after use. Despite these initiatives, post-consumer waste has become a significant contributor to environmental degradation. The situation persists even with disposal instructions, often accompanied by illustrative drawings, aimed at educating consumers on environmentally responsible disposal methods.

With over 5 billion consumers of manufactured products globally, improper waste disposal presents a severe threat to planetary health. For instance, approximately 8 million tons of waste enter water bodies annually, endangering 40% of marine mammals and 44% of seabird populations. In Uganda, the environmental crisis mirrors global trends. Although the government actively promotes recycling, studies reveal that less than half of sold products are effectively recycled. Consequently, the country faces heightened environmental risks, with recent catastrophes linked to poor waste disposal claiming over 34 lives. This study investigates the effectiveness of disposal instructions in mitigating post-consumer waste in Uganda. It examines how these instructions influence consumer behavior and their role in addressing environmental risks associated with improper disposal. Adopting a qualitative approach, the research employs focus group discussions and interviews to explore consumer experiences and perceptions regarding disposal instructions and their impact on post-consumer waste. Key findings are expected to provide insights into the barriers to effective waste disposal despite regulatory efforts and widespread recycling campaigns to conserve the environment. The study aims to inform policies and practices that can enhance the effectiveness of disposal instructions, reduce environmental degradation, and promote sustainability.

Evaluating Nitrogen and Phosphorus Dynamics Influenced by Animal Manure Biochar in Eutric Cambisol

Admire R. Dzvene

Cornelius Chiduzo

Pearson N.S. Mnkeni

University of Fort Hare, South Africa

Corresponding author e-mail: ADzvene@ufh.ac.za

Most cultivated soils in smallholder management exhibit a restricted natural capacity to provide crops with nitrogen (N) and phosphorus (P), which are vital for growth and productivity. Manure-based biochars (MBCs) are strongly advocated because they contain considerable concentrations of N and P. Therefore, this study produced four manure-based biochars with varying nutrient contents from cattle (CMB), goat (GMB), sheep (SMB), and poultry (PMB)



manures at 400 °C. A 46-day incubation experiment involving soil and biochar was conducted using sandy loam Eutric Cambisol to explore the changes in N and P when mixed with MBCs at a set biochar dosage equivalent to raising soil organic carbon content from 0.7 to 2%. The application of SMB, PMB, GMB, and CMB resulted in a decrease in ammonium-N (NH₄-N) concentration by 9.61, 12.5, 14.6, and 15.0% at day 25 compared to the initial concentrations, respectively. Nitrate N (NO₃-N) content increased from day 11 in soils amended with MBC due to the nitrification of available nitrogen. Olsen-P was released at rates of 38.11(CMB), 37.14 (GMB), 34.53 (PMB), and 14.10% (SMB) after 18 days of incubation. The results reveal that MBCs can serve as valuable organic C sources of plant nutrients, supplying NO₃-N through enhanced nitrification and improving the bioavailability of P.

Investigating Institutional Policies and Research Collaborations with Students and Study Leaders

Sophy Mogorosi

Joseph Lekunze

Adebanji A.W. Ayeni

Magdalene Grobler

Enoima Emmanuel Abraham

Adesanjo Matthew Olugbemi

North-West University Business School, South Africa

Topfaith University, Nigeria

Anjola Consulting, South Africa

Corresponding author e-mail: Joseph.lekunze@nwu.ac.za

Collaborative study helps people share knowledge, learn new skills, get more attention, make connections in the academic world. It is very important for graduate students, especially those who are interested in writing, because it helps them learn useful skills and makes it easier to make important additions to their fields. Nonetheless, institutional norms and standards profoundly impact these joint endeavours. The main aim of this research is to identify institutional rules and procedures that influence cooperation between students and assigned supervisors for peer-reviewed publications. Researchers used semi-structured interviews, which let them tailor their questions to get the most accurate results. Using the qualitative study approach and reflective topic analysis to look at the information we got from eleven people. Identified key themes include understanding of university rules, obstacles encountered by students and academic leaders, and reasons propelling collaborative projects. Notwithstanding the presence of institutional policies, considerable deficiencies in their knowledge and effective execution were noted. Even though formal policies were in place, were big problems with how well they were known and followed. It was found that support structures that stress open education and customized teaching methods make joint research projects more effective. This study suggests that universities should regularly send out rules and instructions on how to work together on research projects. Research Supervisors and students should learn about these concepts and how important they are in workshops and classes that encourage fair access to resources and create an environment where people can work together. This study shows that joint research is important for sustainable development



because it improves the academic framework for ongoing learning by making it easier to share knowledge and learn new skills. Workshops and classes that make fair access to educational materials easier improve participation and lessen academic inequality. The goal of these studies is to improve people's abilities and make institutions more open to policies that encourage joint research, which is necessary for long-term progress in both education and society.

A Synopsis of Green Energy Technology Implementation in South Africa

Sifiso Vilakazi

Lerato Mzenzi

North-West University, South Africa

University of Pretoria, South Africa

The implementation of green energy technologies in South Africa represents a pivotal strategy to address the nation's energy security challenges, mitigate climate change, and drive sustainable economic development. This study critically examines the adoption, diffusion, and scalability of green energy technologies, focusing on renewable energy sources such as solar, wind, and hydropower, as well as innovative energy storage and grid modernization initiatives. South Africa's energy landscape is notable for its reliance on coal, which contributes heavily to greenhouse gas emissions and environmental deterioration. However, regulatory initiatives like the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) have accelerated the integration of renewable energy into the national grid.

This qualitative study employs a document review methodology to critically analyze the implementation of green energy technologies within the country's socio-economic and policy contexts. Drawing on a wide range of data sources, including government policies, energy sector reports, international agreements, and academic publications, the research explores the barriers, drivers, and impacts of transitioning to renewable energy systems. The study uses a thematic analytic methodology to find recurring trends and insights, with an emphasis on three key areas: policy formulation and execution, stakeholder collaboration, and the socioeconomic repercussions of green energy programs. The findings reveal a dual narrative of progress and constraint: while initiatives like the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) have successfully mobilized private investment and increased renewable energy capacity, challenges such as policy inconsistency, insufficient grid infrastructure, and limited public participation remain. Furthermore, the study emphasizes the need for stronger alignment between green energy projects and the concepts of a just energy transition, particularly in terms of creating job opportunities, tackling energy poverty, and assisting communities that have historically relied on coal businesses. This research emphasizes the necessity of integrated, inclusive, and flexible policy frameworks for improving the scalability and sustainability of green energy technology. Through using document review as a primary data collection method, the study provides a nuanced understanding of South Africa's green energy transition, as well as recommendations to policymakers, industry stakeholders, and development practitioners to accelerate the country's transition to a low-carbon future. These findings add to the broader discussion of equitable energy transitions in the Global South, emphasizing the interplay of environmental, economic, and social concerns.



Linking green entrepreneurship to green innovation: the mediating role of green entrepreneurial self-efficacy.

William Makumbe

North-West University Business School, South Africa

In line with the aspirations of the United Nations 2030 Agenda, environmental sustainability has become a topical concept in academic discourse. Globally, organisations are at the forefront of adopting environmentally friendly practices. However, little is empirically known about SMEs' sustainability efforts. This research, therefore, examined the mediation effect of green entrepreneurial self-efficacy on the relationship between green entrepreneurship and green innovation in Zimbabwean SMEs. Data were analysed using SMART PLS4 from 500 managers who were systematically sampled. The results revealed that whilst green entrepreneurship profoundly impacted green innovation, green entrepreneurial self-efficacy partially mediated the relationship between the two variables. The results are essential in guiding the development of policies and practices to stimulate green entrepreneurial activity in SMEs.

The Mediating Role of Green Knowledge Sharing on the Relationship Between Green Transformational Leadership and Green Innovation in the SADC Manufacturing Landscape

William Makumbe

John Marumbwa

North-West University Business School, South Africa

Great Zimbabwe University, Masvingo. Zimbabwe

Owing to an upsurge in environmental concerns, there has been an increased call from policymakers and pressure groups for business organisations to adopt sustainable business practices in the SADC manufacturing landscape. Accordingly, this research sought to investigate the mediation effect of green knowledge sharing on the relationship between green transformational leadership and green innovation. Utilising Smart PLS 4 in analysing data systematically collected from 500 managers, results revealed whilst green transformational leadership profoundly impacted green innovation, knowledge sharing partially mediated the relationship between the two variables. This study is significant because it validates a model that promotes eco-friendly processes. Environmentally friendly exportable products from the SADC manufacturing industry are critical in enhancing the respective economies' GDP and the natural environment. This is important in the attainment of the United Nations Sustainable Development Goals.



Statistical Analysis of Road Traffic Accidents in Rwanda

*Samuel Sindayigaya
Christian Habimana
Geofrey Twesigye
Wilson Musoni*

*University of Kigali, Rwanda
Hasselt University, Belgium*

Road traffic crashes rank as the 9th leading cause of death with low and middle-income countries sharing a disproportionate number of fatalities throughout the world (S K Singh, 2012). African countries, carry a higher burden of these fatalities compared to the developed world.

Rwanda as African country, had had considerable road safety problems before its 2020 vision, visible in the numerous incidences of road accidents reports, ranked on the third-place worldwide (WHO, 2018). After the 1994 Genocide against Tutsi in Rwanda, road safety management was characterized by dispersed, uncoordinated, and insufficient resources to improve traffic safety. From 2015 onwards, the Rwanda's government, together with other stakeholders, has put more efforts into addressing the issue of high-level road traffic crashes in the country by enforcing and regulating road traffic rules and regulations, controlling road users' behaviour in order to minimize the total number of road crash deaths and injuries that were still fluctuating within unacceptable ranges.

The picture of road traffic accidents in Rwanda needed a study to investigate the status of road accidents in Rwanda in order to make further recommendations. The researcher had to collect data on road accidents records from the Rwanda National Police, the department of road traffic and safety. The data collected ranged from 2009 to 2019. The dataset includes variables like type of accidents, factors associated with road accidents, level of accidents, and trends in the country, time, days and months of accidents occurrence, level of fatality, and injuries. The analysis indicated that in Rwanda, males are highly involved in the road accidents at the level of 94.7 %. drivers' behaviour ranked the leading cause of road accidents in Rwanda at the level of 94% compared to the other road accidents causes. Thus, focusing on changing the drivers' behaviours, enforcing and regulating road traffic rules and regulations as well as controlling road users' behaviour should be the main focus in reducing road accidents in Rwanda.

Sustainable Development and Smallholder Agriculture: Understanding Farmers' Views on Privatized Extension Services in Collins and Thulamela Municipality, South Africa

*Rudzani Mudzielwana
University of Fort Hare, South Africa*

Agricultural extension services enhance agricultural productivity, food security, and rural livelihoods, particularly in developing economies. In South Africa, smallholder farmers rely heavily on public extension services; however, these services face challenges such as



inadequate funding, limited personnel, and inefficiencies in service delivery. As a result, there is increasing debate on the feasibility of privatizing agricultural extension to improve service provision.

However, empirical insights into smallholder farmers' perceptions of this transition remain limited. This study examines the determinants of smallholder farmers' perceptions of public agricultural extension services privatization in Thulamela and Collins Chabane Municipalities, Vhembe District, Limpopo Province. A structured survey was conducted with 319 farmers selected through stratified and simple random sampling techniques. Data were analyzed using a binary probit model to identify key socio-economic and institutional factors influencing farmers' perceptions. The results indicate that age ($p < 0.05$), differences in production output ($p < 0.1$), effectiveness of extension services ($p < 0.1$), knowledge of pluralistic extension ($p < 0.01$), technology adoption ($p < 0.1$), and distance to extension personnel ($p < 0.05$) significantly shape farmers' attitudes toward extension privatization.

The findings highlight the need for inclusive policy reforms to strengthen public agricultural extension while exploring models of pluralistic service delivery that incorporate public-private partnerships. Improving access to financially inclusive extension services can enhance smallholder farmers' participation in climate-smart agriculture, increasing productivity, resilience, and sustainability. By integrating financial inclusion mechanisms such as access to microfinance, digital payment systems, and agricultural credit schemes, farmers can afford advisory services that facilitate sustainable farming practices. This ensures that vulnerable groups, including women and youth farmers, gain equal access to essential knowledge, technology, and markets, reducing rural inequalities. Furthermore, a sustainable extension model will promote environmental stewardship by equipping farmers with low-input, resource-efficient farming methods, reducing overreliance on chemical inputs, and improving soil and water conservation. Strengthening financial inclusion within agricultural extension services contributes to economic empowerment, climate resilience, and long-term food security and reinforces social equity in South Africa's rural economies.

Proactive Strategy and Firm Performance: The Moderating Role of Environment

Muhammad Sanusi Magaji
Federal Polytechnic Kabo, Nigeria

The purpose of this study is to investigate the relationship between proactive dimension of entrepreneurial orientation and firm performance. The study also evaluates the moderating influence of key environmental characteristics, dynamism and hostility on this relationship. Literature in this area was examined leading to hypothesis development. Measurement instrument utilized where based on scale items previously established in the literature by researchers for measuring this construct. Reliability and validity of this scale items were also established by previous studies. The investigation covered only firm in Kano state Nigeria, with the following characteristics: (a) having at least 10 employees and a maximum of 300 workers, (b) small and medium sized enterprises, (c) standing alone, not a subsidiary or branch companies (d) and based in Kano. A total of 352 owners/managers of SMEs participated in the research. Data collected were analyzed using Hierarchical Moderated Regression Analysis implemented in the SPSS statistical program. The results show proactive



has positive and significant relationship with firm performance indicating that the theoretical framework is supported. It was also found that this relationship is partially influenced by environmental dynamism and hostility. These findings demonstrate that proactiveness alone is not a significant determinant of firm performance, it is being influenced partially by environmental characteristics. The implication of this finding for both researchers and managers were also discussed. The study contributes to the expanding filed of entrepreneurial orientation research and provide additional insight into the strategic behavior of firms in a variety of environmental contents.

The Intersectionality of Gender and Ethnicity in Shaping Sexual and Reproductive Health Access in Zimbabwe

Soko Mavis
Nzima Divane
Masaire Rosemary Farayi
Makudza Forbes

University of The Free State, South Africa.
University of Zimbabwe

Background: This study investigated inequalities in access to sexual and reproductive health (SRH) services among the Zezuru and Karanga sub-ethnic groups in Zimbabwe, utilising intersectionality as a theoretical framework. This framework examines how overlapping identities, such as gender and ethnicity, interact with socioeconomic status and cultural norms to create unique barriers to SRH access, advancing understanding of structural inequities faced by marginalised groups.

Methods: A mixed-methods research design was employed, integrating quantitative and qualitative approaches for a holistic understanding. Multistage stratified sampling was used to select 450 survey participants. The process involved, stratification by ethnicity, sex, and age cohorts; identification of geographic clusters (villages) within Mashonaland East and Masvingo provinces; proportional allocation based on cluster demographics; and random selection of participants within each stratum. Furthermore, purposive and snowball sampling identified participants for 18 semi-structured interviews, 16 focus group discussions (FGDs), and 23 key informant (KI) interviews. Quantitative data were analysed using SPSS (version 30.0), were, descriptive statistics, frequencies, means, and standard deviations were used to summarise the data, while thematic analysis contextualised qualitative findings, to generate emerging themes, guided by the study objectives.

Results: The findings revealed significant gendered and ethnic disparities in SRH access, exacerbated by cultural and systemic barriers. The intersectionality framework illuminated how overlapping marginalisations exacerbated challenges for rural women in ethnic minority groups.

Conclusion: The study underscores the need for culturally sensitive, community-driven, and sustainable interventions, aligned with SDG 3 (Good Health and Well-being) and SDG 5 (Gender Equality). Recommendations include leveraging renewable energy for



healthcare delivery, fostering community engagement, and addressing patriarchal norms. This study offers actionable insights to advance equity in health access while contributing to green and sustainable development.

EAC Policies Influencing One Health and Sustainable Green Development: A Scoping Review and Framework

Arnaud Michel Nibaruta
Jack Bwalya

African Leadership University, Rwanda
University College Dublin, Ireland

The East African Community (EAC) has adopted policies that influence the integration of the One Health Approach and Sustainable Green Development. This study aims to develop a framework that describes several policies through which the One Health approach influences sustainable green development within the EAC region. We carried out a scoping review to identify policies using the One Health and Sustainable Green Development (OHSGD) terms (n = 9) published and implemented prior to December 20, 2024, that discusses One Health and Sustainable Green Development aspects across all the 8 member states of EAC. We used the qualitative constant comparative technique to inductively code descriptions and examples of the One Health approach aspects within these policies, arrange the aspects into descriptive domains, and generate an overarching framework. The resulting One Health Approach influence on sustainable green development across EAC countries identifies four areas of the One Health Approach that can influence sustainable green development in EAC. These areas are grouped into four influence categories: integrated health and environmental management, climate change mitigation and adaptation, sustainable agriculture practices, and strengthening multisectoral collaboration. We propose a framework that positions these categories according to their relevance to sustainable green development outcomes and highlights two critical focus areas for assessing the impact of the One Health Approach in EAC.

The Abuja-Kaduna Railway's Impact on Local Businesses In Igabi Local Government

Edidiong Ayeni
Joseph Sekhampu
Kanyinsola Adewumi
Adebanji A. Impno. Ayeni
Landmark University, Nigeria
North-West University Business School, South Africa

One of the flagships of the international economic collaboration between Asia and the African continent is the Abuja-Kaduna railway line, a project of Nigeria-China infrastructural development cooperation. The enactment of this broader agenda of infrastructure growth in



Nigeria was facilitated through Chinese investment and expertise as it reflects China pivotal partner in Africa's infrastructural landscape, with Nigeria being a significant beneficiary. Hitherto, The Abuja-Kaduna railway, financed and constructed by Chinese entities, represents a cornerstone in Nigeria's attempts to upgrade its transportation infrastructure. The poor infrastructural state has been met with an unstable market and low economic output for businesses, insecurity and banditry attacks, and lack of effective utilization of the benefits of the railway transportation system. It is in light of this that the study examined the perspectives of the local business owners and stakeholders within the local government area of the constructed railway on its economic impact on local businesses. The Political Economy Theory was adopted while the methodology adopted a qualitative research approach with the use of Key Informant Interview for data collection and the use of thematic analysis. The findings showed that the establishment of the Abuja Kaduna railway line in Igabi local government area in Nigeria has been of a good addition to the economy of the community via improved transportation, increased customer traffic and sales, and market accessibility. On the flip side, a fundamental deterrent to the economic benefit was found to be the terrorist attacks and banditry resulting in low patronization of the railway line by commuters over time thus affecting local business output. This research recommends tighter security using the local community vigilantes alongside the boarded trained personnel to ensure comprehensive protection of the railway line and its users. The findings show the importance of secure and efficient transportation infrastructure in achieving sustainable development goals via the unveiling. The Abuja-Kaduna railway potential in driving economic growth via market accessibility and supply chain efficiency for local businesses.

Humanitarian aid green technology innovations, Climate financing and sustainable development in Kenya

Catherine Nyambura

Uganda Technology and Management University, Uganda

Climate change has many humanitarian impacts such as drought, floods, landslides, extreme weather conditions requiring urgent response that cost billions of dollars. On the other hand, humanitarian aid responds to these crises with little consideration to dangers posed by materials used during response and poor waste management. These exacerbate the risks associated with climate change in the poor developing Countries including Kenya. This study argues that there is need for humanitarian aid agencies in Kenya to use green technology and innovations in humanitarian response and also improve waste management strategies by collaborating with private sector. There is need for government and Non-Governmental organizations to finance and implement climate change friendly policies. Climate financing could reduce climate change related emergencies and significantly reduce humanitarian operations in the affected areas in Kenya particularly in Counties located in Northern Kenya such as West Pokot and Turkana. According to Sustainable Development Goals report 2018 the rate of global progress has not been keeping pace with the ambition of vision 2030, necessitating immediate action by stakeholders as guided by Paris agreement, SDG 13 on Climate Change and Sendai Framework for Disaster Risk Reduction 2015-2030. Also, UN Disaster Risk Reduction report stated that over the last two decades economic losses from



extreme weather amounted to trillions of dollars. Financing implementation of Kenya climate ambition requires significant public and private finance. According to UNDP in 2020 an estimate of USD 40B was needed for the next ten years (2020-2030) to implement climate mitigation and adaptation action, so far little has been done. The research was conducted using integrated literature review with the aim to assess, critique, and synthesize existing literature on a humanitarian aid green technology innovation, climate financing and climate change in a way that enables new theoretical frameworks and perspectives to emerge. Findings indicate that there is need for humanitarian aid organizations to integrate green technology innovation in the humanitarian response in order to reduce negative impact on climate change in Kenya. In the absence of clear policies on climate financing the challenge of climate change still exists and is likely to challenge the Africa Union Agenda 2063. There is need for collaboration and partnerships among the government, counties, NGOS as well as private sector in order to reverse the climate change trend.

Sustainability in Public Health: Causes of Section 100 Administration in NWDoH

Sedio Philadelphia L.

Van Romburgh J.D.

Ayeni Adebajji A. W.

Olaleye Adebajji A. W.

North-West University Business School, North-West University

South Africans are still experiencing non-service delivery 30 years after the country became democratic. This is done with the knowledge that the South African public administration is beset with violent demonstrations of service delivery caused by maladministration, corruption, and fraud, worsened by ineffective, unethical, and immoral leadership. The sustainability of government departments is crucial to ensuring long-term service delivery and financial stability. Lack of the aforementioned led to serious governance challenges in the North-West Provincial Government (NWPG), with the Cabinet resolving on 9 May 2018 in implementing Section 100(1) of the Constitution of South Africa (1996). This meant that the National Government would now take control of decision making in the North-West Department of Health (NWDoH). The key argument for the intervention was based on the significant disintegration of internal governance structures within the NWDoH. The South African public health governance has been marred by bad publicity for several years since the dawn of democracy. This study focusses on investigating the reasons and causes of the intervention in the NWDoH. The methodology adopted for this study was a qualitative, exploratory and descriptive study based on interpretivism. The study investigated the functional viability of NWDoH, with the executive leadership serving as key participants in the study. Data gathering was carried out by conducting semi-structured interviews and analysed using ATLAS.ti. It was revealed from the analysis that the intervention's causes followed a particular pattern in the stream of instability in the NW7DoH, political instability; collapse of NWDoH leadership; poor personnel management; poor procurement; improper financial management; appointment moratorium; nonpayment of service providers and backlogs of contracts, tender management, insufficient infrastructure; and human resource issues. It was revealed that the NWDoH's leadership and management practices demonstrated that the IMTT (Interministerial Task



Team) restored authority and stability with the creation of ad hoc committees in charge of procurement and supply chain rehabilitation. It was revealed that the committees were not long-lasting with limitations in the IMTT's methods, finance problems, the existence of unskilled members of the ad hoc committees, human resource shortages, and delays in submission processing. The study recommended that members of ad hoc committees with inadequate training be trained with the NWDoh's willingness to spend additional funds on their educational refinement at the beginning of the formulation of an ad hoc committee.

Assessing the Impact of AI on Library User Engagement and Satisfaction

Godwins Osimbo
University of Kigali, Rwanda

This paper explores the influence of artificial intelligence (AI) applications on user engagement and satisfaction within libraries across diverse cultural and socioeconomic contexts. Utilizing a mixed-methods approach, the study integrates quantitative surveys and qualitative semi-structured interviews to collect data from library users and staff. The primary research questions examine the effects of AI technologies on user engagement, satisfaction levels among different demographic groups, and methods for enhancing user experiences through AI. Preliminary findings suggest that AI tools, including chatbots and recommendation systems, notably enhance user engagement and satisfaction, particularly when customized to demographic factors such as age and digital literacy. However, challenges persist, including user confusion, insufficient staff training, and disparities in access. Qualitative data further emphasize the necessity for culturally relevant AI solutions and robust training programs for library personnel. The study offers actionable recommendations for libraries to improve AI services, highlighting the significance of user education initiatives and the creation of inclusive AI applications. By addressing the varied needs of library users, this research illustrates the transformative potential of AI in enriching library services and promoting community engagement globally. The findings contribute to the ongoing discourse regarding the integration of technology in public institutions and its implications for user experience in an increasingly digital world.

A Model for Enhancing Franchisee Effectiveness in the Fast-Food Industry

Inonge Theresa Listia,
Reneezsha Mascouleane Jantjies

North-West University Business School, South Africa

Franchising has become a popular strategy for firms pursuing internationalization. Owing to this, several businesses globally, are partnering with established brands in sectors such as manufacturing and retailing. In South Africa, the fast-food industry is experiencing exponential growth in the franchise business. For this reason, this study examined the effectiveness of franchisees in the fast-food industry in the City of Tshwane. While prior studies have examined success factors in South Africa's fast food franchise industry in general, there remains scant literature on the specific determinants of franchisee effectiveness in the city of Tshwane. Furthermore, despite the rapid expansion of the fast food franchise sector in Tshwane,



franchisee closures remain alarmingly high with almost 10% failing in the early business stages. As a result, a study of this nature has become paramount. An understanding of the factors that influence franchisee effectiveness has become necessary to facilitate decision-making priorities in this sector.

Following an interpretivism paradigm, the study uses a qualitative methodology. A descriptive research design with structured interviews was selected to gather in-depth data from participants, enabling a comprehensive understanding of franchisee effectiveness. The research population includes 140 fast food franchise outlets in Tshwane, with a purposive non-probability sampling method used to select a sample of 10 participants. Each participant has been interviewed using a semi structured interview guide and digitally transcribed. Data analysis is conducted using thematic analysis. The findings revealed that operational efficiency, strong franchisor support and customer service are key drivers of franchisee success in Tshwane's fast-food industry. Successful franchises excel in financial oversight, staff training and strategic marketing while financial constraints, high operational costs and poor cash flow management contribute to failures. Additionally, location and market accessibility play a crucial role in franchise sustainability.

The primary contribution is the development of a Franchisee Effectiveness Model which offers a structured framework to enhance franchisee performance. The model will provide actionable insight for franchisors, franchisees and policymakers, guiding targeted interventions such as enhanced and targeted training programs and strengthening franchisor-franchisee collaboration and market specific strategies to reduce failure rates and ensure long term sustainability.

Managerial Insights for Sustainable Training: Revitalizing Orientation and Initiative Training Strategies

Ayeni Adebajji A. W. (Corresponding author)

Bisschoff Christo A.

Abimbola Temidayo

Abraham Enoima Emmanuel

North-West University Business School, North-West University

University of Hull, University of Hull,

Topfaith University, Mkpatak, Nigeria

Studies have shown that many Organizations take up training initiatives programs without first analyzing/determining which would have a greater effect on organizational performance. This is believed that such actions are carried out with the intent to meet the expected quota of the organizational demands as regards personnel development. This study has noted that a revisit to the benefit of such undergone actions is not evaluated on the appraisal for continuity or discontinuity on its desired goa of the Organization in line with the stated objectives. This becomes a necessity because of the need to optimize returns on investments is a paramount actualization to be actualized in all institutions. Thus, underscoring the demand for the study importance to assess the degree to which training initiatives in businesses are enhancing the



skills and competencies of their workforce with the focus in a developing society. The methodology of the study was quantitative in nature with the collection of data from structured questionnaires, being online and paper filled while engaging the use of simple random techniques in associating with the respondents from the selected organization. To test the hypothesis, Analysis of Variance (ANOVA) alongside descriptive techniques was used to arrive on the positive assertion of the alternate hypothesis stating that training initiative does influence orientation. In contrast to earlier research, this study found that the success of an employee training program depends on the suitability of the tools and training techniques used, as well as the type of orientation training that is customized for the company. Accordingly, this study suggests that demands for training and development be analyzed on previous endeavors before they are designed or redesigned for further employee engagement in the organization.



INTERNATIONAL CONFERENCE ON

**GREEN AND
SUSTAINABLE
DEVELOPMENT**